

AN UNDESCRIBED WATER-STRIDER FROM THE ADIRONDACKS.*

BY CARL J. DRAKE, Syracuse, N. Y.

During the summers of 1917, 1918 and 1919, the writer collected numerous specimens of a small undescribed water-strider belonging to the genus *Microvelia* Westwood upon Bean Pond, a small bog-pond on the forest tract of the New York State Ranger School near Wanaken, New York. The species dwells in small, secluded coves very near the shore usually under the shelter of overhanging vegetation or among aquatic plants. In a few instances some specimens were captured on the moist ground quite near the water's edge. The insect breeds continually during the summer, but only large nymphs and adults were taken in late fall.

In Bueno's key to "THE VELIIDÆ OF THE ATLANTIC STATES"¹ the species runs to *Microvelia borealis* Bueno, from which it may be readily separated by the nearly straight posterior tibiæ in the male and the nearly straight posterior margin of first male genital segment; most of the cells of the hemelytra are white or mostly white in both sexes. In the apterous form only two segments are visible from above, the prothorax being very broad. During August, 1917, I collected an apterous male and female on a small pond in Elka Park, Catskill Mountains, New York, in company with several specimens of *M. borealis* Bueno and a few specimens of *M. americana* Uhler. On a stagnant pond in Syracuse I collected a macropterous male and female during September, 1918. At the same time I took several examples of *M. borealis* Bueno, *M. americana*, and one winged form of *Merragata foveata* Drake, also specimens of *Gerris buenoi* Kirkaldy, *G. rufoscutellatus* Latr., *Trepobates pictus* H. S. and *Rheumatobates rileyi* Bergroth. I have named the insect in honor of Mr. J. R. de la Torre Bueno, who has taken an especially active interest in the aquatic Hemiptera.

* Contribution from Department of Entomology, New York State College of Forestry, Syracuse, N. Y.

¹ BULL. BROOK. ENT. SOC., Vol. XI, No. 3, p. 57.

Microvelia buenoi new species.

Winged male: Head with a longitudinal median impressed line. Antennæ slender, a little longer than head and thorax conjoined; first segment stoutest, its length subequal to that of the third; second segment shortest, the third thinnest; fourth segment longest, nearly fusiform, about equal to the second in thickness, its length slightly more than that first and second taken together. Pronotum a little wider than long, with a distinct collum, the posterior margin rounded, the humeral angles prominent, and tumid, with a broad transverse flavous line near the anterior margin. Eyes round, black, the diameter of each almost half the distance between them. Head and pronotum velvety black, a few silvery hairs near the anterior margin of pronotum, the silvery hairs forming a rather broad streak about each eye. Body beneath black, the grayish hairs giving a grayish black appearance. Elytra as broad as abdomen, membranous, the nervures black and prominent, the cells mostly white. General shape fusiform. Genital segments prominent, the posterior margin of the first above nearly truncate. Legs pilose, black, except coxæ, trochanters and basal portions of femora flavous. Bucculæ flavous. Posterior tibiæ practically straight. Length, 1.9 mm.; width, .81 mm.

Winged female: A little larger and more robust than male; hemelytra practically covering abdomen, the posterior tibiæ as in male. Pronotum and elytra marked as in male. Length, 2 mm.; width, .81 mm.

Apterous male: Fusiform, the antennæ reaching slightly beyond the posterior margin of the thorax. Thorax above divided by distinct sutures into two segments, the prothorax about three times as broad as the mesothorax; posterior margin of both proand mesothorax slightly rounded. Prothorax with a transverse row of pits along posterior margin of flavous line. Connexivum rather broad, outer margins slightly rounded. Abdominal segments unequal, the distal one broadest; a silvery spot, formed by silvery hairs, on each side of the first two and last two abdominal segments. Length, 1.74 mm.; width, .6 mm.

Apterous female: Not quite so broadly orbiculate as *M. borealis* Bueno, the prothorax nearly three times as broad as the mesothorax. A silvery spot on each side of the first three and last three abdominal segments and a row on each side on connexivum (a spot on each segment). Length, 1.81 mm., width, .65 mm.

Type, winged male and allotype, winged female, in my collection. *Morphotypes,* apterous male and female, in my collection.

Paratypes in the collection of New York State College of Forestry, J. R. de la Torre Bueno, and my collection.

Types from Bean Pond, Wanahena, N. Y.

NEW EXOTIC PAPILIOS.

BY GEORGE A. EHRMANN, Pittsburgh, Pa.

Ornithoptera ritsemæ Snell.

Var. *tantalus* Ehrm., ♂, Ent. News, Vol. XV, 214.

♀. Antennæ, head, collar and thorax black. Abdomen, upper side pale brown; sides shaded with yellow, with a series of black spots; underneath the body is yellow. Forewings smoky brown on upper side with a double whitish spot on the outer end of discal cell; apical space with lemon-colored rays along the veins and a series of five triangular, yellowish spots along the sumarginal space. Basal area on the upper side of hindwings white, shaded with yellow outwardly; subdiscal oval black spots very large. Fringes on both fore- and hindwings white; under side of wings the same as above but paler. Exp. $6\frac{1}{2}$ inches.

Habitat, Kala Bala Hills, North Borneo.

Type, Ehrmann Collection.

Papilio nepenthes n. sp.

♂. Antennæ black. Head and fore part of thorax rich carmine, the rest of thorax and upper side of abdomen velvety black; under side of thorax and abdomen carmine, upper side of forewings black with grayish striæ between the nervures. Hindwings brownish black with a large square-shaped white spot on the subapical space; below this large spot a small white spot and in cells R. 2. and R. 3. an oval-shaped carmine spot, shaded or dusted with blackish scales; in cell M. 1. a brilliant carmine spot and another elongated carmine spot on the anal angle. Scent organs pale brown. Outer parts of the tails carmine. Under side of wings same as above, but paler and an extra carmine bar on the discal area of hindwings. Exp. $5\frac{1}{2}$ inches.

Habitat, South East Assam. Type, Ehrmann Collection.

Papilio mantitheus n. sp.

♂. Antennæ, head, thorax and abdomen black; underside of abdomen brown. Ground color of upper side of fore- and hindwings black; a large metallic green band across the disk of both wings is broken or interrupted at the outer end of discal cell, leaving four triangular greenish spots on the costa; the band continues to the abdominal margin. On the